

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)	
)	
Petition of WorldCom, Inc., Pursuant to Section 252(e)(5) of the)	
Communications Act for Preemption of the Jurisdiction of the)	CC Docket No. 00-218
Virginia Corporation Commission Regarding Interconnection)	
Disputes with Verizon Virginia, Inc., and for Expedited)	
Arbitration)	

In the Matter of)	
)	
Petition of AT&T Communications of Virginia, Inc., Pursuant to)	
Section 252(e)(5) of the Communications Act for Preemption of)	CC Docket No. 00-251
the Jurisdiction of the Virginia Corporation Commission)	
Regarding Interconnection Disputes with Verizon Virginia, Inc.)	

**TESTIMONY OF
TERRY L. MURRAY, JOSEPH P. RIOLO, AND RICHARD J. WALSH
IN SUPPORT OF COMPLIANCE FILING OF
AT&T AND WORLDCOM, INC. D/B/A MCI**

October 28, 2003

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EXHIBIT 1	DETAILED ASSUMPTIONS FOR EACH ADDITIONAL NON-RECURRING CHARGE
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EXHIBIT 3	SUMMARY OF COMPLIANCE NRCs

1 **I. INTRODUCTION**

2 **Q. MS. MURRAY, PLEASE STATE YOUR NAME, TITLE AND BUSINESS**
3 **ADDRESS?**

4 A. My name is Terry L. Murray. I am President of the consulting firm Murray &
5 Cratty, LLC. My business address is 8627 Thors Bay Road, El Cerrito, CA
6 94530.

7 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN THIS PROCEEDING?**

8 A. In this proceeding, I filed direct, reply, and surrebuttal testimony on behalf of
9 AT&T Communications of Virginia, Inc. (“AT&T”) and WorldCom, Inc.¹ I
10 presented testimony on economic and policy issues individually and, as a member
11 of panels, on recurring cost issues and non-recurring cost and advanced data
12 services issues.

13 My curriculum vitae, which was appended as Attachment TLM-1 to my
14 direct testimony (AT&T/WorldCom Ex. 8), provides more detail concerning my
15 qualifications and experience.

¹ This testimony is presented on behalf of AT&T Communications of Virginia, Inc., TCG Virginia, Inc., ACC National Telecom Corp., MediaOne of Virginia and MediaOne Telecommunications of Virginia, Inc. (together, “AT&T”) and WorldCom, Inc. d/b/a MCI (“MCI”).

1 **Q. MR. RIOLO, PLEASE STATE YOUR NAME, TITLE AND BUSINESS**
2 **ADDRESS.**

3 A. My name is Joseph P. Riolo. I am an independent telecommunications
4 consultant. My business address is 102 Roosevelt Drive, East Norwich, NY
5 11732.

6 **Q. MR. RIOLO, HAVE YOU PREVIOUSLY TESTIFIED IN THIS**
7 **PROCEEDING?**

8 A. Yes, I filed direct, reply, and surrebuttal testimony on behalf of AT&T and
9 WorldCom, Inc. I presented testimony individually and as a member of panels
10 on recurring cost issues and non-recurring cost and advanced data services issues.
11 My qualifications were included as Exhibit JPR-1 to my direct testimony
12 (AT&T/WorldCom Ex. 6).

13 **Q. MR. WALSH, PLEASE STATE YOUR NAME, TITLE AND BUSINESS**
14 **ADDRESS.**

15 A. My name is Richard J. Walsh. I am an independent telecommunications
16 consultant. My business address is 3577 Conroy Road, Unit 316, Orlando, FL,
17 32839.

18 **Q. MR. WALSH, HAVE YOU PREVIOUSLY TESTIFIED IN THIS**
19 **PROCEEDING?**

20 A. Yes, I filed direct, reply, and surrebuttal testimony on behalf of AT&T and
21 WorldCom, Inc. I presented testimony individually and as a member of the
22 panels on non-recurring cost and advanced data services issues. My qualifications
23 were included with my direct testimony (AT&T/WorldCom Ex. 2).

1 **Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?**

2 A. AT&T and MCI have asked us to explain the additional non-recurring costs
3 (“NRCs”) required by ¶ 696 of the *Order* and to address the issue of potential cost
4 sharing arrangements for loop conditioning non-recurring charges.

5 **II. ADDITIONAL NON-RECURRING COSTS REQUIRED BY THE**
6 **BUREAU’S AUGUST 29, 2003 ORDER**

7 **Q. HAVE YOU PREPARED A COMPLIANCE FILING IN ACCORDANCE**
8 **WITH ¶ 696 OF THE ORDER?**

9 A. Yes. The *Order* directs AT&T/MCI to generate non-recurring costs using their
10 Non-Recurring Cost Model (“NRCM”)² for the following additional unbundled
11 network elements: Manual Loop Qualification (*Order* at ¶ 618), Engineering
12 Query (*Order* at ¶ 618), Load Coil Removal (*Order* at ¶ 639 and ¶ 641), Bridged
13 Tap Removal (*Order* at ¶ 639 and ¶ 641), Engineering Work Order (*Order* at
14 ¶643), and Line Sharing (*Order* at ¶ 648). We have calculated costs in a manner
15 that complies with the *Order*.

16 Nonetheless, we cannot endorse these costs as being TELRIC-compliant
17 because we continue to believe, and AT&T and MCI continue to maintain, that
18 the identification of non-recurring costs for conditioning loops, manual loop

² The NRCM sponsored by AT&T and WorldCom, Inc. in this proceeding was submitted as AT&T/WorldCom Ex. 23, Vol. 2. The NRCM modified in accordance with ¶ 696 and submitted with this compliance filing as Exhibit 2 is identified as the AT&T/MCI FCC Compliance Filing Non-Recurring Cost Model 2.2-VA-FCC and referred to herein as the “Compliance NRCM.”

1 qualification and engineering queries is inconsistent with the TELRIC
2 methodology.³

3 In addition, to comport with ¶ 601 of the *Order*, the Compliance NRCM
4 was rerun with the copper loop percentage set at 100%.

5 The *Order* also directs the parties to negotiate further the NRCs for 4-wire
6 loops, DS1 loops, DS3 loops and interoffice transport. (*Order* at ¶ 593.) AT&T
7 has attempted to initiate negotiation, but as of the date of this filing, no
8 substantive discussions have occurred. These NRCs are subject to the conditions
9 in ¶ 593 of the *Order*.

10 The development of each additional element for this compliance filing is
11 described below. Exhibit 1 shows the additional NRCs, and detailed assumptions
12 for each. Exhibit 2 is the Compliance NRCM with the additional NRCs included.
13 Exhibit 3 is a summary of the Compliance NRCs.

14 **Q. HOW WERE THE ADDITIONAL NRCS DEVELOPED?**

15 A. Each of the additional NRCs is addressed below.

16 ***Manual Loop Qualification***

17 AT&T/MCI have developed costs for the Manual Loop Qualification
18 element based on the tasks and average total task time that we presented in the

³ See e.g., AT&T/WorldCom Ex. 13P (Panel Reply on Non-Recurring Costs and Advanced Data Services) (“AT&T/Worldcom NRC Panel Reply”) at 147-152 and 161-167.

1 AT&T/WorldCom NRC Panel Reply at 168. The detailed assumptions for this
2 element are presented in Exhibits 1 and 2.

3 ***Engineering Query***

4 AT&T/MCI have developed costs for the Engineering Query element
5 based on the tasks and average total task time we presented in the
6 AT&T/WorldCom NRC Panel Reply at 168. The detailed assumptions for this
7 element are presented in Exhibits 1 and 2.

8 ***Load Coil Removal on Loops over 18,000 Feet***

9 AT&T/MCI have developed costs for the Load Coil Removal element⁴
10 based on the assumptions described in Attachment A⁵ to AT&T/WorldCom NRC
11 Panel Reply at ¶ 11. This testimony explained that an all-copper voice-grade loop
12 that is greater than 18,000 feet would have load coils deployed at three locations,
13 the first two of which would likely be underground. The analysis assumed that
14 the third location will be on aerial cable half of the time (*i.e.*, 50% probability)
15 and on buried cable the other half of the time. The tables in AT&T/WorldCom
16 NRC Panel Reply Attachment A ¶ 11 reflect the assumption that underground
17 work would require two technicians, whereas aerial or buried work would only
18 require one.

⁴ This charge only applies to load coil removal from loops that are greater than 18,000 feet in length. *Order* at ¶ 640.

⁵ This Attachment was inadvertently labeled as “Attachment 1,” as well.

1 AT&T/WorldCom NRC Panel Reply Attachment A also provided a list of
2 tasks and task times for load coil removal on loops of over 18,000 feet. This set
3 of assumptions was premised on the conditioning of multiple loops at the same
4 time. Because the Bureau directed “parties to assume conditioning
5 of one loop at a time” (*Order* at ¶ 641), we have removed the
6 steps that no longer pertain.⁶ In addition, this change in assumption requires
7 adjustment of several of the task times. To reflect the conditioning of only one
8 loop at a time, task times should be reduced for the steps relating to identifying
9 the pairs to be deloaded, severing the connection, and splicing the pair.⁷ To be
10 conservative, however, we have relied on the task times already on the record in
11 this proceeding. Therefore, the non-recurring cost that we have calculated for this
12 compliance filing is conservatively high.

13 The detailed assumptions we have used to develop the compliance-filing
14 costs for this element are presented in Exhibits 1 and 2 to this testimony.

⁶ Referring to AT&T/WorldCom NRC Panel Reply, Attachment A, ¶ 11, we removed Steps 7 and 10-15 from the “Underground” table, Steps 6 and 9-14 from the “Aerial” table, and Steps 6 and 9-14 from the “Buried” table.

⁷ Referring to AT&T/WorldCom NRC Panel Reply Attachment A, ¶ 11, times should be adjusted downward for Steps 6, 8, and 9 in the “Underground” table, Steps 5, 7, and 8 in the “Aerial” table, and Steps 5, 7, and 8 from the “Buried” table. Exhibit 1 shows the adjusted times for comparison.

Bridged Tap Removal - Single Occurrence

AT&T/MCI have developed costs for the Bridged Tap Removal element⁸ based on the assumptions laid out in Attachment A to AT&T/WorldCom NRC Panel Reply at ¶ 12. That testimony explained that bridged tap should not exist in underground feeder cable close to the central office. Therefore, it assumed that the bridged tap would occur at an aerial location half of the time (*i.e.*, 50% probability) and at a buried location the other half of the time. The tables in AT&T/WorldCom NRC Panel Reply Attachment A ¶ 12 reflect the assumption that aerial or buried work would require one technician.

AT&T/WorldCom NRC Panel Reply Attachment A also provided a list of tasks and task times for bridged tap removal. This set of assumptions was premised on the conditioning of multiple loops at the same time. Because the Bureau directed us “to estimate this cost assuming conditioning of one loop at a time” (*Order* at ¶ 642), we have removed the steps that no longer pertain.⁹ In addition, this change in assumption requires adjustment of several of the task times. To reflect the conditioning of only one loop at a time, task times should be reduced for the steps

⁸ This charge only applies when the total amount of bridged tap does not exceed 2,500 feet, with no single tap longer than 2,000 feet. *Order* at ¶ 642.

⁹ Referring to AT&T/WorldCom NRC Panel Reply Attachment A, ¶ 12, we removed Steps 7-8 from the “Aerial” table and Steps 6-7 from the “Buried” table.

1 relating to identifying the pairs to be conditioned and splicing the pair.¹⁰ To be
2 conservative, however, we have relied on the task times already in the record in
3 this proceeding. Therefore, the non-recurring cost that we have calculated for this
4 compliance filing is conservatively high.

5 The detailed assumptions for this element are presented in Exhibits 1 and
6 2.

7 ***Engineering Work Order***

8 AT&T/MCI have developed costs for the Engineering Work Order element¹¹
9 based on the forward-looking assumptions laid out in Attachment A to
10 AT&T/WorldCom NRC Panel Reply at ¶ 24. (Paragraphs 25 through 48 to the
11 AT&T/WorldCom NRC Panel Reply Attachment A provide further detailed
12 support.)

13 AT&T/WorldCom NRC Panel Reply Attachment A provided a list of
14 tasks and task times for an engineering work order. Because the Bureau directed
15 us to assume conditioning of one loop at a time (*Order*
16 at ¶¶ 641-642), we incorporated this assumption into the analysis.

17 The detailed assumptions for this element are presented in Exhibits 1 and
18 2.

¹⁰ Referring to AT&T/WorldCom NRC Panel Reply Attachment A, ¶ 12, times should be adjusted downward for Steps 5-6 in the “Aerial” table and Steps 4-5 from the “Buried” table. Exhibit 1 shows the adjusted times for comparison.

¹¹ This charge only applies once per conditioning service order. *Order* at ¶ 643.

Line Sharing

AT&T/MCI have developed costs for the Line Sharing per-line connect and disconnect charges based on the Compliance NRCM's assumptions for the efficient ordering of a two-wire loop and the line sharing assumptions presented in the AT&T/WorldCom NRC Panel Reply. Line sharing requires the placement of two jumpers in the central office (*i.e.*, the running of an additional jumper as compared to a two-wire loop) and the removal of one jumper. (AT&T/WorldCom NRC Panel Reply at 119.) Likewise, line sharing disconnect requires the removal of two jumpers and the placement of one jumper.

The detailed assumptions for this element are presented in Exhibits 1 and 2.

III. COST SHARING ARRANGMENT FOR CONDITIONING CHARGES

Q. WHAT DID THE *ORDER* DIRECT ON THIS ISSUE?

A. The Bureau's *Order* allows Verizon to recover loop conditioning costs from competitors through non-recurring charges.¹² The Bureau acknowledged, however, that these non-recurring charges would pay for loop conditioning that might benefit the future users of the loop. To address this situation, the Bureau directed parties to propose a cost sharing arrangement:

Finally, we note that paragraph 751 of the *Local Competition First Report and Order* requires a

¹² AT&T and WorldCom argued against such charges. (*See e.g.*, AT&T/WorldCom NRC Panel Reply at 147-152). The Bureau acknowledged that these arguments "highlight a possible tension between our TELRIC pricing rules." *Order* at ¶ 639.

1 rebate or other cost sharing arrangement where, as here, Verizon
2 performs and charges for non-recurring activities that may in the
3 future benefit other competitive LECs, or Verizon's own xDSL
4 service. Given the churn for this type of service, we find such
5 subsequent benefits likely to occur. Although neither party
6 proposed a method to implement such cost sharing, we direct the
7 parties to do so in their compliance filings.¹³

8 **Q. IS A COST SHARING ARRANGEMENT NEEDED?**

9 A. We agree with the Bureau's assessment that non-recurring conditioning charges
10 may lead to one competitor paying for functionality that will benefit future users,
11 with Verizon's own DSL service being among the primary beneficiaries. Ms.
12 Murray noted in her direct testimony that "[i]f the first telecommunications
13 provider to use the facility bears all the forward-looking costs of a one-time
14 activity benefiting multiple users, then obviously the first user will be forced to
15 pay more than its fair share."¹⁴ This reasoning, in part, led to the reusability test
16 that we advocated be used in determining which costs should be considered
17 "recurring" versus "non-recurring."

18 Yet, although we appreciate the Bureau's objective of fair cost allocation,
19 designing a workable arrangement to recapture previously paid non-recurring
20 charges is non-trivial. We see any number of difficult questions in devising a fair
21 approach. First, any refund mechanism requires the definition of what would
22 constitute a "benefit" for a future user. Would this "benefit" only apply if a

¹³ Order at ¶ 644 (footnotes omitted).

1 carrier were to provide DSL service over that loop immediately after the first
2 carrier terminated its DSL service, or would a carrier providing DSL over the loop
3 three months later still be deemed to benefit from the first carrier's "investment"
4 in conditioning? Would the cost sharing arrangement be in effect for only the
5 next carrier to provide DSL over the loop, or would subsequent carriers also be
6 deemed to benefit and therefore be required to bear a portion of the cost? At what
7 point, if any, in the future would carriers no longer be deemed to benefit from the
8 original conditioning activity? Would carriers providing services other than DSL
9 (e.g., ISDN or even dial-up Internet service over a long loop) be deemed to
10 benefit from the loop conditioning?

11 Second, a cost sharing arrangement requires an appropriate allocation of
12 the costs. Would costs be allocated based on the number of carriers to benefit¹⁵ or
13 based on some measurement of how much each carrier benefited (e.g., the
14 duration of the carrier's provision of DSL service over that loop)?¹⁶

¹⁴ Murray Direct at 30-31.

¹⁵ For example, assume that each subsequent carrier pays for its share of the conditioning cost based on the number of carriers to benefit. Carrier A pays initially to condition a loop and then loses the customer to Carrier B. Carrier B provides DSL over that same loop. Carrier B reimburses Carrier A for half the cost of conditioning and then itself loses the customer to Carrier C, which also provides DSL. Carrier C would then reimburse Carrier A one sixth of the cost and reimburse Carrier B one sixth of the cost, so that each carrier has now paid one third of the cost.

¹⁶ Assume that Carrier A pays initially to condition a loop and provides DSL over that loop for one year. Carrier A then loses the customer to Carrier B, which provides DSL over the loop for only 6 months before losing the customer to Carrier C. Carrier C provides DSL for 3 years. What portion of the conditioning costs should each carrier bear? When would those costs be evaluated—when a carrier begins its lease of the loop, or when it completes its lease?

1 Third, a cost sharing arrangement would require that Verizon track not
2 only when the loop was conditioned, by whom and how much was paid in non-
3 recurring charges, but also how the loop is being used by subsequent carriers. We
4 do not believe that Verizon is entitled to that kind of information about a
5 competitor's customers. Verizon would also need to be able to track former
6 carriers so as to reimburse them if future carriers benefit. This could be quite
7 challenging if any of the carriers ceases to lease loops through Verizon or goes
8 bankrupt.

9 In addition, any workable cost sharing arrangement would have to give the
10 carriers enough information on which to base the decision of whether to provide
11 service to a customer. So a carrier would have to be able to find out if the loop
12 had been conditioned at some point, as well as how much its "share" of the cost of
13 prior conditioning would now be. Doubtless there are additional questions we
14 have not even begun to address.

15 Perhaps equally important, we are not convinced that a cost sharing
16 arrangement would be useful in this instance. As we described above, AT&T and
17 MCI have developed non-recurring conditioning costs based on the tasks and task
18 times presented in the AT&T/WorldCom Panel Reply¹⁷ and the assumptions

¹⁷ AT&T/WorldCom Panel Reply on Non-Recurring Costs and Advanced Data Services at 152-157 and Attachment A.

1 ordered by the Bureau.¹⁸ AT&T/MCI's compliance filing shows a total cost of
2 \$372.19 for the removal of load coils on loops over 18,000 feet and a total cost of
3 \$48.01 for removal of a single occurrence of bridged tap.¹⁹ These non-recurring
4 charges reflect the Bureau's determination that loops will be conditioned one at a
5 time. Although significantly below those proposed by Verizon in this proceeding,
6 the charges presented in the AT&T/MCI compliance filing are still sufficiently
7 high so as to deter competitors from ordering loop conditioning services on loops
8 that require it.

9 Given this level of conditioning charges, we do not believe that
10 competitors will order loop conditioning, particularly load coil removal, at all.
11 They will instead choose not to serve potential customers whose loops would
12 require such expensive conditioning. In addition, the phase-out of line sharing
13 arrangements directed by the Commission's *Triennial Review Order*²⁰ is likely to
14 reduce the overall incidence of competitors ordering loops from Verizon to
15 provide DSL. In light of this situation and the relative complexity of any possible
16 cost sharing system, we do not believe it is practical or constructive to implement

¹⁸ Order at ¶¶ 639-644.

¹⁹ See Exhibit 3.

²⁰ Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers* (CC Docket No. 01-338); *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996* (CC Docket No. 96-989); *Deployment of Wireline Services Offering Advanced Telecommunications Capability* (CC Docket No. 98-147), FCC No. 03-36, (rel. Aug. 21, 2003) at ¶ 264.

1 a cost sharing program. Therefore, AT&T and MCI are not presenting a proposal
2 for conditioning cost sharing or its implementation.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 **A. Yes.**